

CLAIMS:

1. An automated shutter control for a shutter having a plurality of slats which are pivoted in unison, the automated shutter control comprising:

5 a motor;

 a slat interface having a body portion and a connector portion, the connector portion having a contour configured to register with and connect to at least a portion of an end of one of the slats of the shutter; and

10 a moving assembly moved by the motor and connectable to the slat interface so as to move the slat interface between a first and a second position.

15 2. An automated shutter control as claimed in claim 1 wherein the moving assembly is connectable to the body portion of the slat interface.

20 3. An automated shutter control as claimed in claim 1 wherein the body portion includes an elongate slot and the moving assembly includes an engagement pin, the engagement pin being received within the elongate slot.

25 4. An automated shutter control as claimed in claim 1 wherein the moving assembly comprises a screw threaded shaft connected to the motor and rotated about its axis by the motor, and a carriage

assembly threadedly mounted on the jack screw so that rotation of the jack screw moves the carriage assembly in a reciprocating linear manner along the jack screw, the direction of movement of the carriage assembly being determined by the direction of rotation
5 of the jack screw.

5. An automated shutter control as claimed in claim 4 wherein the carriage assembly comprises a carriage body having a threaded passage therein for mounting on the jack screw, and an engagement
10 pin extending from the carriage body, the engagement pin being connectable to the slat interface.

6. An automated shutter control as claimed in claim 5 wherein the body portion of the slat interface includes an elongate slot in
15 which the engagement pin is received.

7. An automated shutter control as claimed in claim 1 wherein the connector portion comprises a flat plate portion connectable to a flat surface of the slat, and a curved portion corresponding in
20 shape to a curve on the slat, the flat plate portion and curved portion together at least partially engaging the slat.

8. An automated shutter control as claimed in claim 7 further comprising a second flat plate portion connected to the curved
25 portion to engage a second surface of the slat.

9. An automated shutter control as claimed in claim 1 wherein the connector portion comprises a sleeve dimensioned and configured to engage an end of one of the slats.

5 10. An automated shutter control as claimed in claim 1 further comprising adhesive means on the connector portion, the adhesive means providing adhesion to a slat when the slat interface is connected to a slat.

10 11. An automated shutter control as claimed in claim 10 wherein the adhesive means comprises a double-sided tape.

12. An automated shutter control as claimed in claim 10 wherein the adhesive comprises glue.

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13. An automated shutter control as claimed in claim 1 wherein the body portion of the slat interface comprises a projection extending upwardly from the connector portion, the projection including receiving means for engagement with the moving assembly.

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14. An automated shutter control as claimed in claim 1 further comprising a gear box between the motor and the moving assembly.

25 15. An automated shutter control as claimed in claim 1 further comprising a power source for the motor.

16. An automated shutter control as claimed in claim 15 wherein the power source comprises a solar energy collector and a solar energy storage device.

5 17. An automated shutter control as claimed in claim 16, further comprising a housing for the motor and at least a part of the moving assembly, the solar collector being mounted on the outside of the housing for exposure to sunlight.

10 18. An automated shutter control as claimed in claim 15 wherein the power source is a battery.

19. An automated shutter control as claimed in claim 15 wherein the power source is an AC supply outlet.

15 20. An automated shutter control as claimed in claim 1 further comprising a remote activation system for activating the motor from a distance.

20 21. An automated shutter control as claimed in claim 20 wherein the remote activation system comprises a signal-receiver associated with the automated shutter control, a switch member for activating the motor in response to a signal received from the receiver, and a remote transmitter for transmitting a signal to the signal receiver to activate the motor.

22. An automated shutter control as claimed in claim 21 wherein the remote transmitter has at least two input buttons to effect movement of the slat interface to either the first or the second position respectively.

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23. An automated shutter control as claimed in claim 1 wherein the connector portion incorporates a hole, and a screw which passes through the hole to fasten the connector portion to a slat.

10 24. An automated shutter control as claimed in claim 1 wherein the body portion includes an aperture and the moving assembly includes a clevis joint, the clevis joint being received by the aperture.

15 25. An automated shutter control as claimed in claim 1 wherein the body portion includes a ball and the moving assembly includes a socket, the socket being received by the ball.

20 26. An automated shutter control as claimed in claim 1 further comprising a slip mechanism to prevent further movement of the shutters when an obstruction is present.

27. A shutter and automated shutter control combination comprising:

25 a shutter having a plurality of parallel slats which are pivoted in unison;

an automated shutter control adjacent the plurality of slats, the automated shutter control comprising a housing, a motor within the housing, a slat interface having a body portion and a connector portion, the connector portion having a contour configured to 5 register with and connect to at least a portion of an end of one of the slats of the shutter, and a moving assembly partially in the housing and partially extending outside of the housing to releasably connect to the slat interface so as to move the slat interface between a first and a second position.

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28. A shutter and automated shutter control combination as claimed in claim 27 wherein the automated shutter control comprises at least two slat interfaces, each of which is connected to a different slat on the shutter, at least two slat interfaces being 15 moved in unison by the moving assembly.

29. An automated shutter control for a shutter having a plurality of slats which are pivoted in unison, the automated shutter control comprising:

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a motor;

a slat interface dimensioned to register with and engage at least a portion of an end of one of the slats of the shutter; and a moving assembly, moved by the motor and connectable to the slat interface so as to move the slat interface between a first and 25 a second position.

30. A method for opening and closing a shutter having a plurality of slats comprising:

attaching a slat interface contoured to register with and engage at least a portion of an end of one of the slats of the
5 shutter;

locating a moving assembly adjacent the slat interface so as to engage therewith, the moving assembly not being directly connected to the slats; and

reciprocating the moving assembly so that the slat interface
10 moves between a first and a second position corresponding to the open and closed position of the shutter.

31. A method as claimed in claim 30 further comprising attaching a solar collector to the shutter control, and locating a power
15 source within the shutter control which is charged by energy derived from the solar panels.

32. A method as claimed in claim 30 further comprising the step of locating a remote activation system on the automated shutter
20 control so that a remote transmitted signal is received by a signal receiver on the automated shutter control, the signal receiver activating the motor to move the slat interface between the first and the second position.